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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,817	02/27/2004	Ying Xiong	Inno-016	7980
29956	7590	05/01/2008		
TIMOTHY P. OHAGAN 8710 KILKENNY CT FORT MYERS, FL 33912			EXAMINER PATEL, HEMANT SHANTILAL	
			ART UNIT 2614	PAPER NUMBER
			MAIL DATE 05/01/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/788,817

**Applicant(s)**

XIONG ET AL.

**Examiner**

HEMANT PATEL

**Art Unit**

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show items 66 and 68 as described in the specification and items 42, 44, 48, and 62 as recited in claims. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claims 1-23 are objected to because of the following informalities: They recite reference elements 42, 44, 48, and 62 that are not described in the application disclosure. Also, they recite abbreviated term VoIP, IP. The actual phrase which the abbreviated term represents must be recited at its first use. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claim 15 recites "detecting the in-band signaling (62) within the remote voice band (54)". The specification describes signal detection module receiving remote voice band but Fig. 1 shows (54) being transmitted. It is not clear if remote voice band signal is received or transmitted. Further, the signal (54) is connecting to local handset instead of remote device.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouchi (US Patent No. 7,058,171 B2), and further in view of Veschi (US Patent No. 7,190,771 B2), and further in view of Forlenza (US Patent No. 6,665,375 B1).

**Regarding claim 1**, Ouchi teaches of Internet Protocol (IP) telephone (Figs. 1, 5, col. 11 ll. 44-55) comprising:

a network communication system for encapsulating data into IP frames for exchange with remote devices over a frame switched network (Fig. 1 item 23, Fig. 5 item 42);

a system client application coupled to the network communication system for exchanging call set up messages with a remote VoIP gateway to establish a media channel for the exchange of media session data (Figs. 1, 5 item 11, col. 8 ll. 12-17, col. 5 ll. 34-50, col. 9 ll. 54-56);

a dialog system coupled to the network communication system for:

translating frames of compressed digital audio data originated from a remote device to recreate remote voice band (Fig. 1 item 23, Fig. 5 item 44, col. 5 ll. 51-col. 6 ll. 2); and

detecting and translating local voice band to compressed digital audio data for transmission to the VoIP gateway (Fig. 1 item 23, Fig. 5 item 44, col. 5 ll. 51-col. 6 ll. 2);

the presentation module receiving the session status signals driving a display of session status messages on a display screen (Figs. 1, 5 item 13b, col. 7 ll. 54-67) (col. 3 ll. 16-col. 13 ll. 59).

Ouchi teaches of displaying various pieces of information on a display for guiding the user but Ouchi does not clearly indicate it to be status signals detected from the received in-band signaling.

However, in the same field of communication, Veschi teaches of internet telephony device detecting received in-band signaling (ring) by checking for distinct frequencies and then announce (display) it through headset or speaker (Figs. 3-7 and their descriptions, also col. 4 ll. 50-67).

It would have been obvious to a person of ordinary skill in the art at the time he invention was made to modify Ouchi to include detection for in-band signaling to display the information as taught by Veschi for "announcing incoming calls at Internet telephone stations based on personal computers equipped with headsets" (Veschi, col. 1 ll. 36-38).

Ouchi and Veschi do not teach of displaying session status message corresponding to in-band signaling detected within the remote voice band.

However, in the same field of communication, Forlenza teaches of a telephone device with look-up table for associating audible status information or status codes (message signals) to visual status information (display messages) (col. 4 ll. 13-63, col. 6 ll. 20-26; Figs. 2A-2C, 3, 6-7 and their descriptions).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify to modify Ouchi and Veschi to include look up table for determining status display messages associated with status information or codes as taught by Forlenza so that meaningful "text messages" for "a hearing impaired person may be presented with call status information" (Forlenza, col. 4 ll. 38-41, 6 ll. 24).

***Regarding claim 2***, Ouchi teaches of system client (Figs. 1, 5 item 11) provides display signals to the display driver circuit for displaying (col. 7 ll. 54-67) and Veschi teaches of providing status signals (Fig. 5 item 575), and Forlenza teaches of session status signals and displaying status messages in accordance with the status signals (col. 4 ll. 13-63).

***Regarding claim 3***, Veschi teaches of detecting in-band signal of ring based on frequency to generate status signal (col. 3 ll. 8-col. 4 ll. 49) and Forlenza teaches of audible call status information detection (col. 4 ll. 13-17).

***Regarding claim 4***, Forlenza teaches of a telephone device with look-up table for associating audible status information or status codes (message signals) to visual status information (display messages) (col. 4 ll. 13-63, col. 6 ll. 20-26; Figs. 2A-2C, 3 and their descriptions).

**Regarding claim 5**, Ouchi teaches of Internet Protocol (IP) telephone (Figs. 1, 5, col. 11 ll. 44-55) comprising:

a network communication system for encapsulating data into IP frames for exchange with remote devices over a frame switched network (Fig. 1 item 23, Fig. 5 item 42);

a system client application coupled to the network communication system for exchanging call set up messages with a remote VoIP gateway to establish a media channel for the exchange of media session data (Figs. 1, 5 item 11, col. 8 ll. 12-17, col. 5 ll. 34-50, col. 9 ll. 54-56);

a compression module coupled to the network communication system for:  
receiving session media data received over the frame switched network and recreating remote voice band for driving a speaker (col. 5 ll. 51-col. 6 ll. 2 incoming from Internet); and

receiving a local voice band corresponding to audio detected by a microphone and generating media session data for transmission over the frame switched network (col. 5 ll. 51-col. 6 ll. 2 outgoing to Internet); and

a display screen for displaying information (Figs 1, 5 item 13b, col. 7 ll. 54-67) (col. 3 ll. 16-col. 13 ll. 59).

Ouchi teaches of displaying various pieces of information on a display for guiding the user but Ouchi does not clearly teach of the displayed information to be session status message corresponding to in-band signaling within the remote voice band.



However, in the same field of communication, Veschi teaches of internet telephony device detecting received in-band signaling (ring) by checking for distinct frequencies and then generating status message (Fig. 5, item 575) (Figs. 3-7 and their descriptions, also col. 4 ll. 50-67).

It would have been obvious to a person of ordinary skill in the art at the time he invention was made to modify Ouchi to include detection for in-band signaling to provide the corresponding information as taught by Veschi for "announcing incoming calls at Internet telephone stations based on personal computers equipped with headsets" (Veschi, col. 1 ll. 36-38).

Ouchi and Veschi do not teach of displaying session status message corresponding to in-band signaling detected within the remote voice band.

However, in the same field of communication, Forlenza teaches of a telephone device with look-up table for associating audible status information or status codes (message signals) to visual status information (display messages) (col. 4 ll. 13-63, col. 6 ll. 20-26; Figs. 2A-2C, 3, 6-7 and their descriptions).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify to modify Ouchi and Veschi to include look up table for determining status display messages associated with status information or codes as taught by Forlenza so that meaningful "text messages" for "a hearing impaired person may be presented with call status information" (Forlenza, col. 4 ll. 38-41, 6 ll. 24).

**Regarding claim 6,** Forlenza teaches of in-band signal detection module for detecting in-band signaling within the remote voice band and generating session status

signal (binary code), generating session status message in response to the status signal (text or graphical message), and presenting session status message on display (col. 3 ll. 51-col. 4 ll. 41).

**Regarding claim 7**, Forlenza teaches of detecting in-band signals, ring and busy signals, in audio information as prior art (col. 3 ll. 66-col. 4 ll. 12, col. 6 ll. 20-26 detecting audible call status information). These were known in the art for using distinct frequencies. The ring frequencies were known as R1, R2, R3, R4 using distinct frequencies and cadences (for multiparty lines), and busy signals were known as fast busy (network problem) and slow busy (called device busy). These were detected based on their frequencies and cadences.

**Regarding claim 8**, Forlenza teaches of using look-up table to convert binary code (status signal) to associated text or graphical display message (status message) and displaying it (col. 6 ll. 20-26).

**Regarding claim 9**, Forlenza teaches of a system client application generates session status signal (offhook or onhook) related to the media channel (col. 3 ll. 55-65) and presentation module receives system client generated status signal and audio process generated session status signal (col. 6 ll. 20-26 audible call status information i.e. ringing or busy) for displaying.

**Regarding claim 10**, Forlenza teaches of telephone device including caller ID detection which includes detection of frequency shift keying (FSK) signals involving multi frequencies and also the signal being sinusoidal audio waves change the polarity from +ve value to -ve value every cycle as was well known in the art.

**Regarding claim 11**, refer to rejections for claim 10 and claim 8.

**Regarding claim 12**, Ouchi teaches of key-pad system (Figs. 1, 5 item 13a) for modulating local voice band with a tone corresponding to depressed key to generate in-band signaling (col. 3 ll. 61-col. 4 ll. 3, col. 8 ll. 1-17 pressing numeric keys for called telephone terminal number and processed by control section) and control section generates session status signal (col. 8 ll. 12-15 accessing called telephone terminal on the Internet). Forlenza teaches of dialing digits using the keypad and generating status signal of "Dialing" (col. 3 ll. 56-59).

**Regarding claim 13**, refer to rejections for claim 12 and claim 10.

**Regarding claim 14**, refer to rejections for claim 13 and claim 8.

**Regarding claim 15**, Ouchi teaches of a method of operating Internet Protocol (IP) telephone comprising:

exchanging call set up messages with a remote VoIP gateway to establish a media channel for the exchange of media session data (48) (col. 8 ll. 12-17, col. 9 ll. 54-56, col. 10 ll. 6-8);

receiving session media data received over the media channel (col. 5 ll. 34-50, col. 8 ll. 12-34, col. 10 ll. 27-49 receiving media from Internet for conversation);

decompressing the session media data to recreate remote voice band (54) for driving a speaker (col. 8 ll. 12-34, col. 10 ll. 27-49 processing media from Internet by communication section for telephone apparatus and eventually for loudspeaker 15a);

receiving a local voice band corresponding to audio detected by a microphone (col. 8 ll. 12-34, col. 10 ll. 27-49 receiving media from microphone 15b);

generating media session data (48) corresponding to the local voice band for transmission over the media channel (col. 8 ll. 12-34, col. 10 ll. 27-49 processing media from voice interface by communication section for output to Internet);

Ouchi teaches of displaying various pieces of information on a display for guiding the user but Ouchi does not clearly indicate it to be status signals detected from the received in-band signaling.

However, in the same field of communication, Veschi teaches of internet telephony device detecting received in-band signaling (ring) by checking for distinct frequencies and then announce (display) it through headset or speaker (Figs. 3-7 and their descriptions, also col. 4 ll. 50-67).

It would have been obvious to a person of ordinary skill in the art at the time he invention was made to modify Ouchi to include detection for in-band signaling to display the information as taught by Veschi for "announcing incoming calls at Internet telephone stations based on personal computers equipped with headsets" (Veschi, col. 1 ll. 36-38).

Ouchi and Veschi do not teach of displaying session status message corresponding to in-band signaling detected within the remote voice band.

However, in the same field of communication, Forlenza teaches of a telephone device with look-up table for associating audible status information or status codes (message signals) to visual status information (display messages) (col. 4 ll. 13-63, col. 6 ll. 20-26; Figs. 2A-2C, 3, 6-7 and their descriptions).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ouchi and Veschi to include look up table for determining status display messages associated with status information or codes as taught by Forlenza so that meaningful "text messages" for "a hearing impaired person may be presented with call status information" (Forlenza, col. 4 ll. 38-41, 6 ll. 24).

**Regarding claim 16**, refer to rejections for claim 15 and claim 3.

**Regarding claim 17**, refer to rejections for claim 16 and claim 4.

**Regarding claim 18**, Ouchi and Forlenza teach of generating session status signal during establishment of media channel and Forlenza teaches of displaying it.

**Regarding claim 19**, refer to rejections for claim 18 and claim 16.

**Regarding claim 20**, refer to rejections for claim 19 and claim 17.

**Regarding claim 21**, Ouchi teaches of modulating the local voice band with DTMF tone corresponding to operator depressed key to generate in-band signaling within the local voice band (col. 3 ll. 61-col. 4 ll. 3, col. 8 ll. 1-17 pressing numeric keys for called telephone terminal number and processed by control section); and control section detects this in-band signaling and generates corresponding session status signal (col. 8 ll. 12-15 accessing called telephone terminal on the Internet) and Forlenza teaches of dialing digits using the keypad and generating status signal of "Dialing" (col. 3 ll. 56-59); and Forlenza teaches of displaying session status message on a display screen corresponding to the detected in-band signaling (col. 4 ll. 13-63, col. 6 ll. 20-26; Figs. 2A-2C, 3, 6-7 and their descriptions).

**Regarding claim 22**, refer to rejections for claim 21 and claim 16.

**Regarding claim 23**, refer to rejections for claim 22 and claim 17.

**Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,640,448	Toyoshima
US Patent No. 6,011,794	Mordowitz
US Patent No. 6,169,734	Wilson
US Patent No. 6,438,384	Chen
US Patent No. 6,636,506	Fan
US Patent No. 6,724,750	Sun
US Patent No. 6,940,819	Kato
US Patent No. 7,170,981	Lim
US Patent Application Publication No. 2004/0057421	Kawabata
US Patent Application Publication No. 2005/0105540	Baumann

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEMANT PATEL whose telephone number is (571)272-8620. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Fan Tsang/  
Supervisory Patent Examiner, Art Unit 2614

Hemant Patel  
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HSP